



PATENT
Customer No. 22,852
Attorney Docket No. 05552.1452-00000
Application No.: 10/612,162

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-3. (Canceled)

4. (Currently amended) An isolated antibody which binds selectively to carbohydrate deficient transferrin, wherein the binding takes place in the region of the following four epitopes segments (1) to (4) of the carbohydrate deficient transferrin sequence:

SEQ ID NO: 1 VVARSMGGKEDLIWELL and
SEQ ID NO: 2 TTEDSIAKIMNGEADAMSLDGGF and
SEQ ID NO: 3 SKLSMGSGLNLSSEPN and
SEQ ID NO: 4 YEKYLGEEYVKAV.

5. (Currently amended) An isolated antibody which binds selectively to carbohydrate deficient transferrin, wherein the The antibody as claimed in claim 4, wherein the binding takes place only in the region of three of the following four epitopes segments (1) to (4) of the carbohydrate deficient transferrin sequence:

SEQ ID NO: 1 VVARSMGGKEDLIWELL and
SEQ ID NO: 2 TTEDSIAKIMNGEADAMSLDGGF and
SEQ ID NO: 3 SKLSMGSGLNLSSEPN and
SEQ ID NO: 4 YEKYLGEEYVKAV.



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6. (Currently amended) An isolated antibody which binds selectively to carbohydrate deficient transferrin, wherein the The antibody as claimed in claim 4, wherein the binding takes place only in the region of two of the following four epitopes segments (1) to (4) of the carbohydrate deficient transferrin sequence;

SEQ ID NO: 1 VVARSMGGKEDLIWELL and
SEQ ID NO: 2 TTEDSIAKIMNGEADAMSLDGGF and
SEQ ID NO: 3 SKLSMGSGLNLESPN and
SEQ ID NO: 4 YEKYLGEELYVKAV.

7. (Previously Presented) The antibody as claimed in claim 4, which is a monoclonal antibody.

8. (Previously Presented) A monoclonal antibody which is produced by the cell culture having the deposit number DSM ACC2540.

9. (Previously Presented) A monoclonal antibody which is produced by the cell culture having the deposit DSM ACC2541.

10. (Previously Presented) An antigen-binding fragment which can be prepared from an antibody as claimed in claim 4.

11. (Canceled)

12. (Currently Amended) A process for preparing the antibody as claimed in claim 4 by immunizing a suitable experimental animal with unglycosylated transferrin,

fusing the spleen cells of this experimental animal to myeloma cells, resulting in antibody-producing hybrid cells, cloning the hybrid cells and selecting a hybrid cell clone which produces an antibody whose binding according to the results of an epitope mapping takes place in the region of the following four epitopes segments (1) to (4) of the carbohydrate deficient transferrin sequence:

SEQ ID NO: 1 VVARSMGGKEDLIWELL and
SEQ ID NO: 2 TTEDSIAKIMNGEADAMSLDGGF and
SEQ ID NO: 3 SKLSMGSGNLNLSEPN and
SEQ ID NO: 4 YEKYLGEEYVKAV;

and obtaining antibodies by a process known to the skilled worker from the selected hybrid cell clone selected in this way.

13. (Previously Presented) An immunoassay for detecting carbohydrate deficient transferrin in a sample, which comprises bringing an antibody as claimed in claim 4 into contact with the sample, and determining qualitatively or quantitatively the formation of an immune complex involving carbohydrate deficient transferrin.

14. (Currently Amended) A test kit for carrying out an immunoassay as claimed in claim 13 comprising an antibody which binds selectively to carbohydrate deficient transferrin, wherein the antibody binding takes place in the region of at least two of the following four epitopes (1) to (4) of the carbohydrate deficient transferrin sequence:

SEQ ID NO: 1 VVARSMGGKEDLIWELL and
SEQ ID NO: 2 TTEDSIAKIMNGEADAMSLDGGF and

SEQ ID NO: 3 SKLSMGSGLNLSEPN and

SEQ ID NO: 4 YEKYLGEELYVKAV.

15. (New) A test kit as claimed in claim 14, wherein the antibody binding takes place in the region of three of the following four epitopes (1) to (4) of the carbohydrate transferrin sequence:

SEQ ID NO: 1 VVARSMGGKEDLIWELL and

SEQ ID NO: 2 TTEDSIAKIMNGEADAMSLDGGF and

SEQ ID NO: 3 SKLSMGSGLNLSEPN and

SEQ ID NO: 4 YEKYLGEELYVKAV.

16. (New) A test kit as claimed in claim 14, wherein the antibody binding takes place in the region of all four of the following epitopes (1) to (4) of the carbohydrate transferrin sequence:

SEQ ID NO: 1 VVARSMGGKEDLIWELL and

SEQ ID NO: 2 TTEDSIAKIMNGEADAMSLDGGF and

SEQ ID NO: 3 SKLSMGSGLNLSEPN and

SEQ ID NO: 4 YEKYLGEELYVKAV.